



(TITLE OF THE DOCUMENT)

Specification

(TITLE OF THE INVENTION)

Printing apparatus such as Ink Jet
Printer and Ink supplying Means for
Printing apparatus

(SCOPE OF THE PATENT CLAIM)

(Claim 1) A printing apparatus such as an ink jet printer, comprising a plurality of ink supplying means which can supply ink information and a controller for controlling at least a printing operation, wherein, when said ink supplying means is mounted on the printing apparatus, the mutual fitness among said plurality of ink information is judged and the printing operation can be controlled.

(Claim 2) The printing apparatus according to Claim 1, wherein the control of said printing operation includes a stop instruction of the printing apparatus.

(Claim 3) A printing apparatus such as an ink jet printer, including a plurality of ink supplying means which can supply information of the residual ink amount, a controller for controlling at least a printing operation, and printing means or ink supplying means which can supply a preset minimum amount data of ink to the controller, wherein, when said ink supplying means is mounted on the printing means, a cleaning operation can be instructed by comparing the said residual ink amount information with said preset minimum amount data of ink.

(Claim 4) The printing apparatus according to Claim 3, wherein the cleaning operation is instructed, based on the less residual ink amount information of said plurality of residual ink amount information in the ink supplying means.

(Claim 5) The printing apparatus according to Claim 3

or 4, wherein said cleaning operation is instructed when the residual ink amount is greater than a sum of the preset minimum amount of ink and ink amount required for the cleaning operation.

(Claim 6) The printing apparatus according to Claim 3 or 4, wherein the printing means is stopped when there is left ink within the ink supplying means, of which the residual amount is smaller than the sum of the preset minimum amount of ink and ink amount required for the cleaning operation, and then exchange of the ink supplying means can be instructed.

(Claim 7) The printing apparatus according to Claim 3 or 4, wherein the cleaning operation which requires a small amount of ink up to the preset minimum amount of ink can be executed when there is left ink within the ink supplying means, of which the residual amount is smaller than the sum of the preset minimum amount of ink and ink amount required for the cleaning operation.

(Claim 8) Ink supplying means for printing apparatus, wherein ink supplying means mounted to a printing apparatus such as an ink jet printer or the like includes at least a tank for storing ink therein, and a memory which memorizes ink information of the tank which includes adjustment information to another ink supplying means to be mounted to the printing apparatus.

(Claim 9) Ink supplying means for printing apparatus, wherein ink supplying means mounted to a printing apparatus such as an ink jet printer or the like includes a tank for storing ink therein and a memory which memorizes residual ink amount information in a rewritable manner, and also, a preset minimum

amount data of the residual ink is memorized, as ink information of the tank, readably from the printing apparatus.

(Claim 10) Ink supplying means for printing apparatus, wherein ink supplying means mounted to a printing apparatus such as an ink jet printer or the like includes a tank for storing ink therein and a memory which memorizes residual ink amount information, and ink ejecting amount data per dot at the printing time is memorized, as ink information, readably from the printing apparatus.

(Claim 11) The ink supplying means for printing apparatus according to Claims 8 to 10, wherein a print head is mounted to said ink supplying means.

(DETAILED DESCRIPTION OF THE INVENTION)

(0001)

(Technical Field of the Invention)

This invention belongs to technical fields of a printing apparatus such as an ink jet printer or the like and of ink supplying means which can supply ink to this printing apparatus.

(0002)

(Prior Art)

In this type of a serial printer, disclosed in Japanese Patent Laid-Open No. Hei 8-310007 (known example 1), a memory having comparative data and a control section connected to a print controlling section are provided in a main body of the printer and an ink cartridge capable of being used is judged depending on whether said data coincides with data for discernment included in ROM or not.

(0003)